What is claimed is:

1. A method for correcting, in particular refractive visual defects of an eye (1), comprising
a coherent light source (4),
a beam modification device (5) for shaping and deflecting a beam of the coherent light source (4),
wherein provision is made for a wavefront analyzer device (2) for analyzing a wavefront of the optical path in the eye (1).

2. The device as recited in Claim 1,
wherein, in addition, provision is made for a topography analyzer unit (2') for analyzing the surface of the eye (1).

3. The device as recited in one of the preceding claims which are related to a device,
wherein, moreover, provision is made for a control unit (3) for processing signals of the wavefront analyzer unit (2) and/or
for processing signals of the topography analyzer unit (2') and/or
for controlling the coherent light source (4) and/or
for controlling the beam modification device (5).

4. The device as recited in one of the preceding claims which are related to a device,
wherein the beam modification device (5) is designed in such a manner that an intraocular lens and/or an eye lens and/or the cornea of the eye (1) and/or a contact lens and/or an implantable contact lens (ICL) and/or a spectacle lens are processable via the beam.

5. The device as recited in one of the preceding claims which are related to a device,

wherein the coherent light source (4) is a laser, in particular a spot scanning excimer laser system.

6. The device as recited in one of the Claims 3 through 5, wherein the control unit (3) is designed in such a manner that the analysis of the optical path in the eye (1) and/or the analysis of the surface of the eye (1) can be carried out virtually simultaneously with the processing of an optical element via the beam of the coherent light source (4).

7. A method for correcting, in particular refractive visual defects of an eye (1), in particular using a device as recited in the preceding claims,
wherein the optical path of the eye is determined via a wavefront analysis; and
an ideal optical system is calculated which would result in a correction of the visual defects of the eye (1).

8. The method as recited in Claim 7,
wherein the topography of the eye (1) is analyzed as well.

9. The method as recited in one of the preceding method claims,
wherein the ideal optical system is provided on the basis of the data obtained from the wavefront analysis and/or from the topography analysis.

10. The method as recited in one of the preceding method claims,
wherein, moreover, shot positions for manufacturing the ideal optical system are calculated with the assistance of the data obtained from the wavefront analysis and/or from the topography analysis.

11. The method as recited in one of the preceding method claims,
wherein the old optical system of the eye (1) is reshaped into the calculated ideal optical system.

12. The method as recited in one of the preceding method claims,
wherein the optical system includes the eye lens and/or an intraocular lens and/or the cornea of the eye and/or a contact lens and/or an ICL and/or at least one spectacle lens.

13. An ideal optical system manufactured according to one of the preceding method claims and/or using one of the devices as recited in the preceding claims which are related to devices,
wherein the optical system includes elements made of materials which are suitable for implantation and/or for adhesion and/or for ablation, in particular plastic or glass.

14. The ideal optical system as recited in one of the preceding claims which are related to an optical system,
wherein the optical system includes elements having refractive and/or diffractive structures.

15. An element for use in an optical system,
wherein the element has refractive and/or diffractive structures.

16. The use of a method as recited in one of the preceding method claims and/or of a device as recited in one of the preceding claim which are related to devices,
for completely correcting a visual defect of an eye.